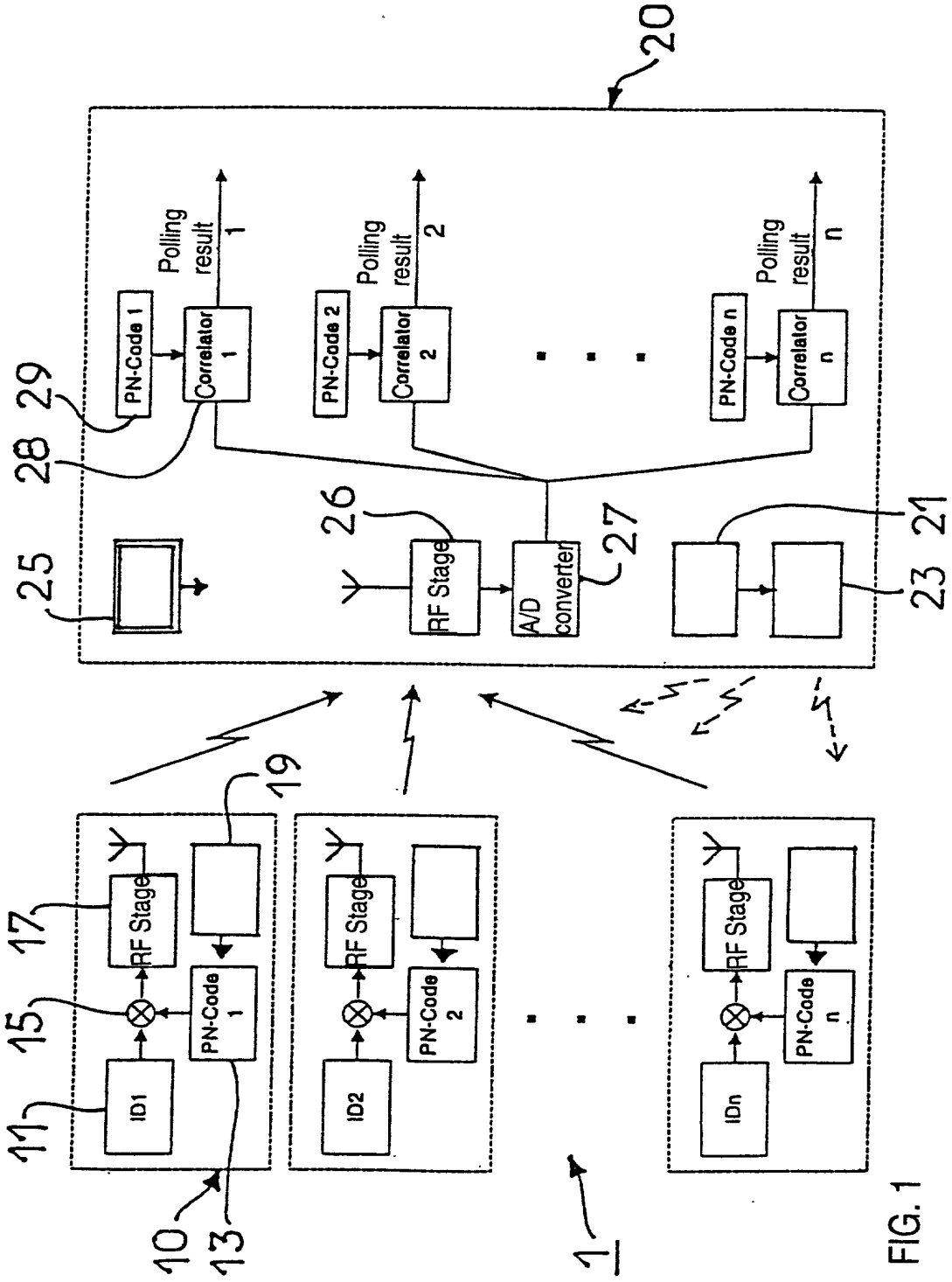
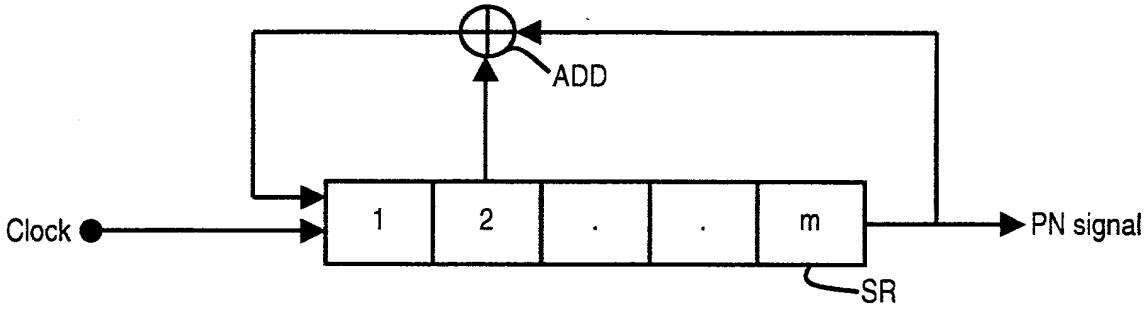

20
Polling result 1
Polling result 2
Polling result n
PN-Code 1
Correlator 1
PN-Code 2
Correlator 2
PN-Code n
Correlator n
29
28
25
26
RF Stage
A/D converter
27
21
23
19
17
15
11
RF Stage
PN-Code 1
ID1
RF Stage
PN-Code 2
ID2
RF Stage
PN-Code n
IDn
10
13
1

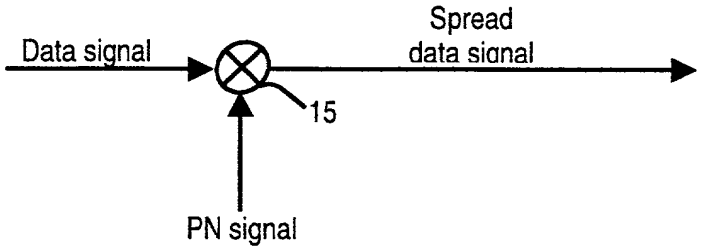
FIG. 1

Production of the spread data signal in the microcontroller itself:

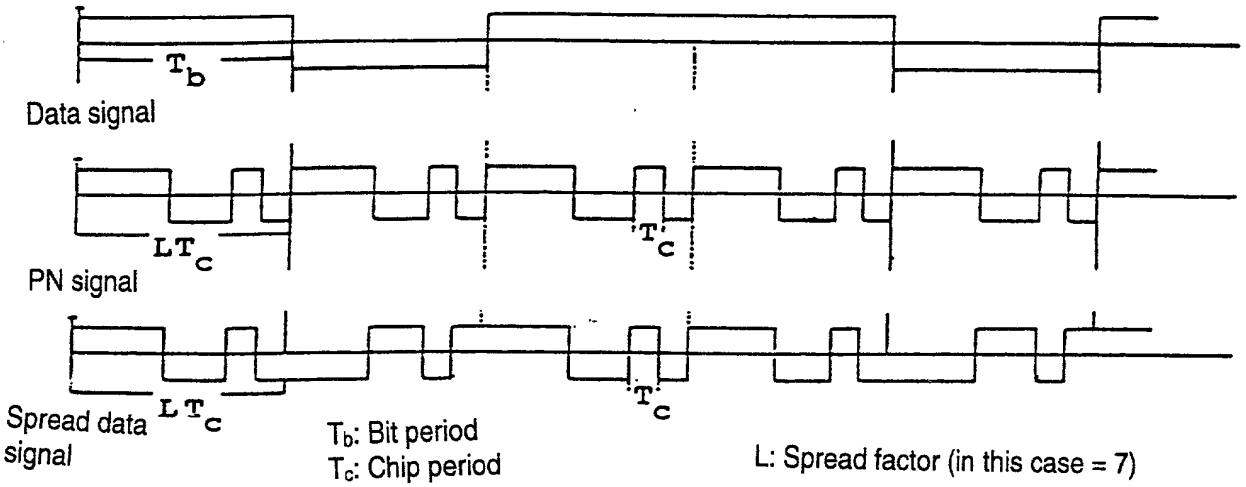
1. Production of the PN sequence by means of a feedback shift register



2. XOR linking with the data signal



Signal profile (for m=3):



BPSK (biphase shift keying) modulation of the carrier with a spread data signal

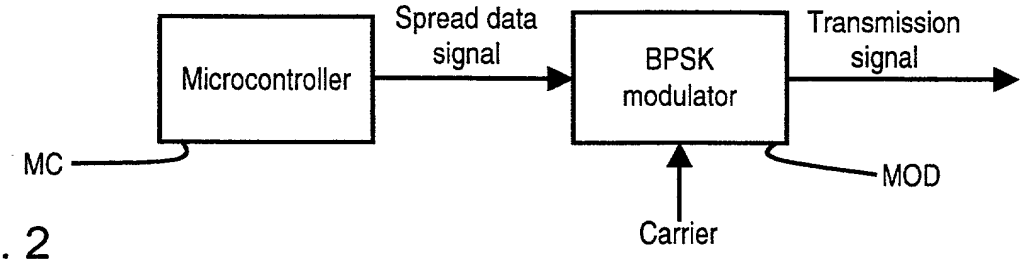


FIG. 2

FRANCE TELECOM 0095479

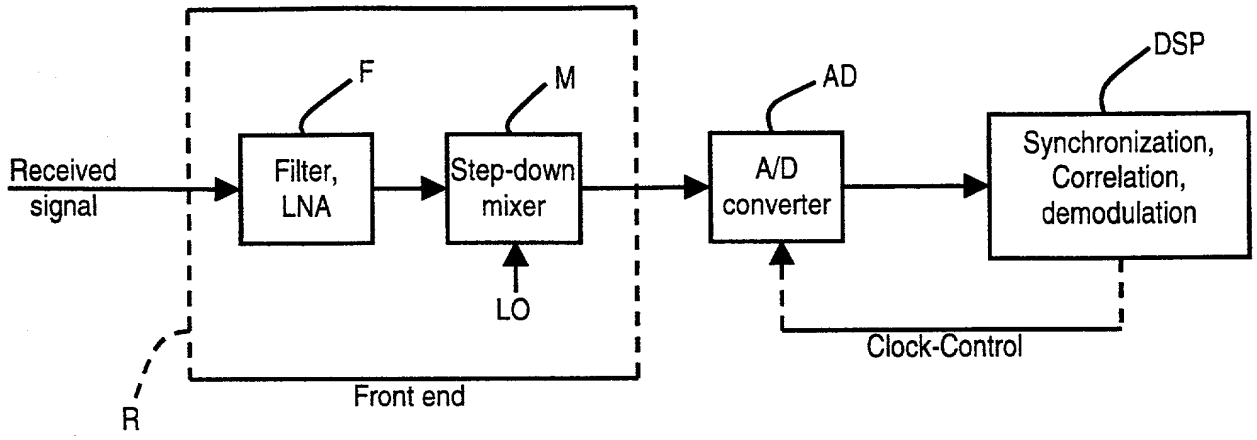

Received signal
F
Filter, LNA
M
Step-down mixer
LO
AD
A/D converter
DSP
Synchronization, Correlation, demodulation
Clock-Control
Front end
R

FIG. 3

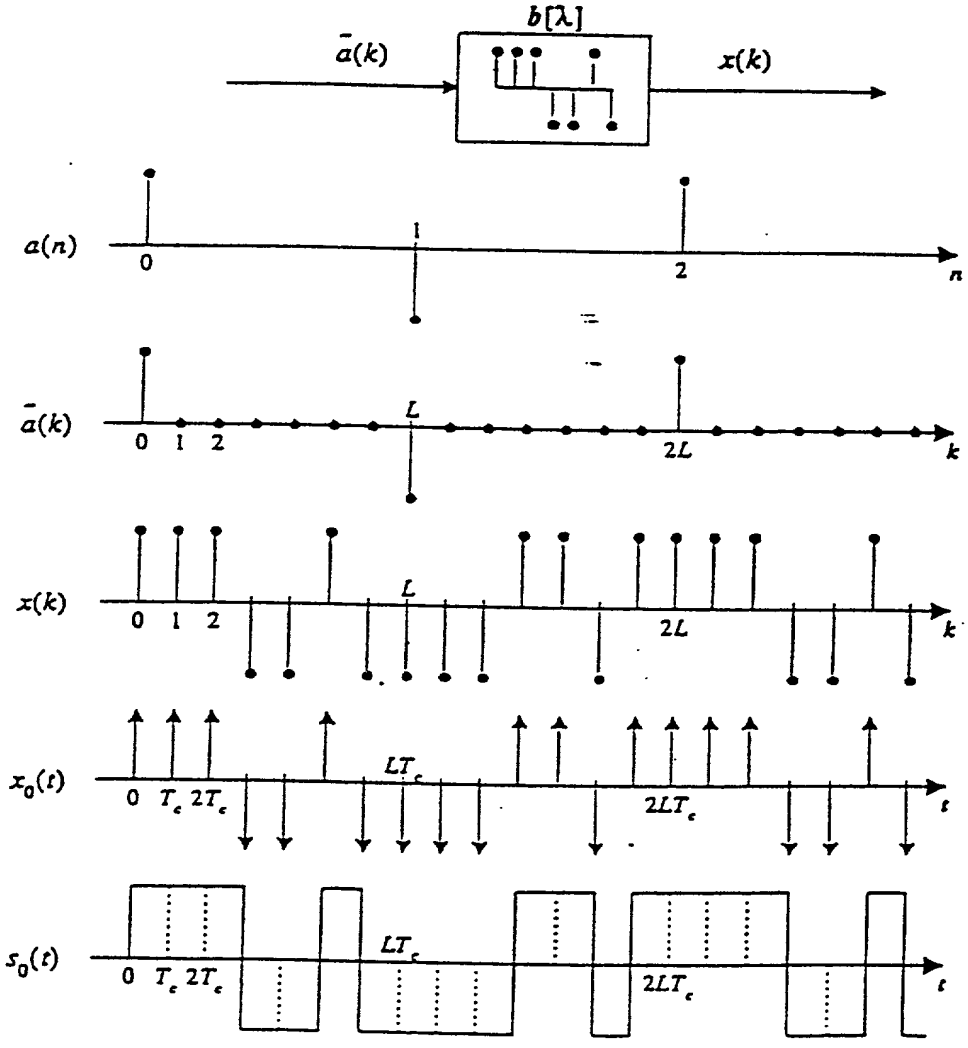

b[λ]
ā(k)
x(k)
a(n)
ā(k)
x(k)
x0(t)
s0(t)
L
2L
LTc
2LTc
Tc

FIG. 4

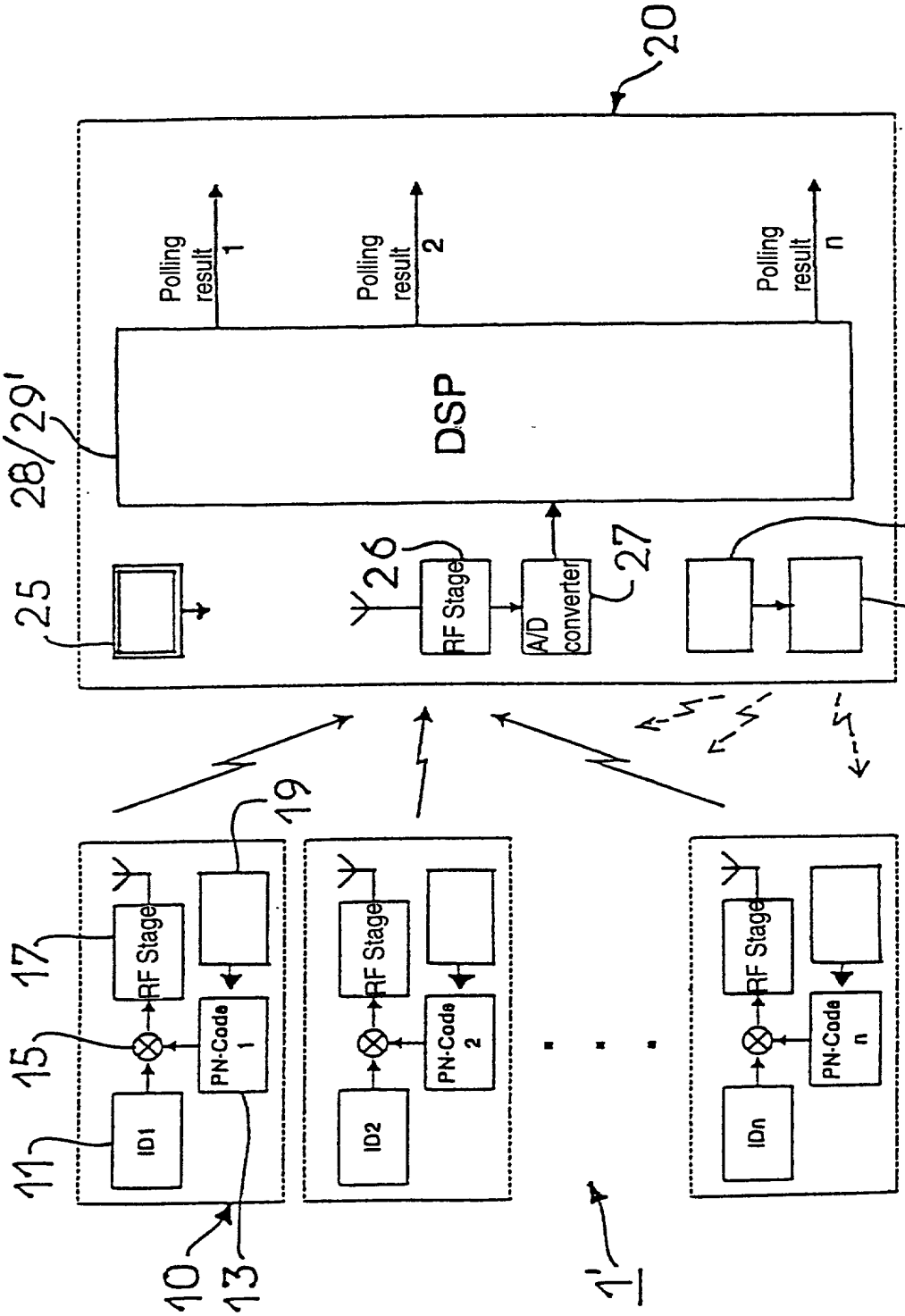

20
28/29'
DSP
Polling result 1
Polling result 2
Polling result n
25
26
RF Stage
A/D converter
27
21
23
19
17
15
11
ID1
PN-Code 1
ID2
PN-Code 2
IDn
PN-Code n
10
13
1'

FIG. 5